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Feature Article - Improving the Quality of the National Accounts

INTRODUCTION

The purpose of this article is to outline recent and planned developments aimed at improving the quality of the Australian national accounts, one of Australia's key sets of economic statistics.

Given the importance of the national accounts in economic policy making and monitoring, the ABS places a high weight on the quality of these statistics. While quality can have a number of dimensions, in the end, the quality of a particular statistic is determined by its 'fitness' for whatever use users have for the statistic. The ABS has regular contact with key users of the national accounts and their views are given prominence in determining work programs for improving quality.

The preceding article, **Revisions to Quarterly Economic Growth Rates 1984 to 1993** (page 3-14), looks at one aspect of the quality of Australia's national accounts. However, as a general assessment of quality, the analysis in this article has major limitations. First, other aspects of quality such as timeliness, accuracy, relevance, and coherence are not analysed. Indeed, certain aspects of quality (e.g. the extent to which revisions are made and timeliness) involve trade-offs; in many cases it is simply not possible to improve one aspect of quality without worsening another. Second, the findings in the article are based on an historical analysis. The historical pattern of revisions may not be a reliable guide to the reliability of contemporary or future estimates, particularly in times of significant developments in concepts, data sources or compilation methods.

In this article, some of the steps recently initiated by the ABS to improve the quality of the national accounts are discussed, and the major innovations which the ABS proposes to implement over the next few years are highlighted. Some of these improvements may lead to transient increases in the extent of revisions to the national accounts while the changes are being put into place. In the longer term, however, the enhancement of the other aspects of quality (especially accuracy and coherence) will more than compensate. Also, it is expected that the level of revision will improve once the changes are bedded down.

ABS ECONOMIC STATISTICS STRATEGY

Developments to enhance the quality of the national accounts are driven by the ABS economic statistics strategy, which provides an overall framework for developments in Australia's economic statistics. Major elements of this strategy include:

- addressing emerging economic policy concerns, especially the need for better measures of productivity, price change, labour costs and activity in the services sector;
- improving the quality of data, especially from the statistical collections that are important sources for the national and international accounts;
- upgrading statistical frameworks and standards;

- improving the statistical infrastructure; and
- minimising the load placed on data providers.

The initiatives described in this article all form part of this strategy.

CONCEPTUAL FRAMEWORK

Australia's national accounts are compiled within a well-defined framework based on, and largely consistent with, the United Nations' System of National Accounts (SNA) published in 1968. This standard was replaced in 1993, and the revised standard is intended to make the national accounts a more comprehensive and useful source of data for a wide range of economic analyses. Over recent years the ABS has been working through the implications of the new standard and has developed plans for implementation. These plans are detailed in **Information Paper: Implementation of Revised International Standards in the Australian National Accounts** (Cat. no. 5251.0), released in September 1997. The ABS intends to base the national accounts as closely as practicable on the revised standard, and the first official release on this basis is scheduled for October 1998.

CHAIN VOLUME MEASURES

An important innovation arising from the new SNA standard, and one that possibly will have the greatest impact for many users, is the replacement of the traditional constant price estimates by annually re-weighted chain volume measures. Conceptually, chain volume measures provide superior indicators of growth. Information Paper: **Introduction of Chain Volume Measures in the Australian National Accounts** (Cat. no. 5248.0), which explains what annually re-weighted chain indexes are, their advantages and disadvantages, and how and when the ABS proposes to implement them, was released in March 1998.

INPUT-OUTPUT (I-O) BASED COMPILATION

At present, the income, expenditure and production-based estimates of GDP are compiled independently. However, while the framework in which these estimates are compiled is conceptually coherent, the actual estimates and their components are often inconsistent. The new SNA standard recommends adoption of the commodity flow method (or I-O based approach) for compiling the national accounts. This was also the recommendation of a review (undertaken within the ABS in 1993) which addressed the issue of whether the annual national accounts should be compiled within an I-O framework. In line with the SNA recommendation and the findings of the internal review, it is expected that the ABS quarterly national accounts will be compiled on this basis from the September quarter 1998 release.

Within the I-O tables, the supply and use of each commodity are equal, and the production and income of each industry are equal. These equalities ensure not only that the three independent measures of GDP are equal, but, most importantly, that the components are consistent. This is of the utmost importance when different data items from the national accounts are used together, such as in econometric modelling and productivity statistics.

In the I-O approach, inconsistencies and inaccuracies in the estimates are identified and resolved at a detailed level. This may require adjustments to the I-O tables or the national accounts as they are currently compiled. Information on inaccuracies is also fed back to those responsible for conducting the surveys or supporting statistical infrastructure, and steps are taken to remedy the

problems in future. Thus, the I-O approach will lead to improvements in accuracy and coherence both in the short and long term. To support the move to the I-O approach, the ABS has been progressively extending and improving upon the detailed source data required by this approach.

INTERNAL REVIEW OF QUARTERLY ACCOUNTS

In 1994, an internal review of the quarterly national accounts was undertaken. This review was concerned primarily with the quality of the growth rates of estimates for the latest periods and made a number of recommendations, particularly on upgrades to source data. All of the review's recommendations have essentially been implemented. The review also endorsed the I-O approach. External review of the quarterly accounts In 1995, a review team comprising senior officers from the Statistics New Zealand, the United Kingdom Office for National Statistics and the Commonwealth Department of the Treasury undertook an assessment of the state of the Australian national accounts - their quality, the way they are compiled, how well they meet users' needs and the plans already set in train for improving them. Interviews were conducted with major users of the national accounts and with ABS officers responsible for compiling economic statistics. The review team endorsed the directions set by the earlier internal reviews and made a number of other recommendations which either have been or are presently being implemented.

SOURCE DATA

In addition to responding to the recommendations of the various quality reviews, the ABS is continually introducing improvements to the source data used in compiling the national accounts. In 1991-92, a review of public finance statistics led to substantial improvements in the quality of those statistics. In particular, the accuracy of the quarterly series has improved and the size of revisions has been reduced. In 1992, it was decided to record merchandise exports at the date of shipment rather than the date of processing (by the Australian Customs Service). Improved methods for deriving constant price estimates of the finance and insurance industry were introduced in the June quarter 1997 national accounts.

The coherence of source data has been improved by projects aimed at reconciling the data collected from different sources, and integrating the statistical procedures used in different surveys. The ABS is also making more extensive and timely use of information available from the Australian Taxation Office and has embarked on the development of a set of labour accounts that will reconcile the data on employment, earnings and hours collected through various labour surveys.

Developments are also occurring in the ABS statistical infrastructure that underlies the collection of much of the source data, which will lead to further improvements in data consistency and coherence in the longer term. Examples of these developments include the redevelopment of the ABS Business Register, the ABS Data Management project and the move to a common frame for many of the surveys underlying the national accounts.

In the June quarter 1997, an adjustment was made to the national accounts for businesses which had previously been mistakenly omitted from the ABS Business Register and consequently not captured in the source data collections. A quarterly audit program has now been instituted, and the accounts now include adjustments for new businesses which are yet to be included on the register. (See the feature article **New Business Provisions** in the October 1997 issue of **Australian Economic Indicators** for additional information.)

The ABS is currently investigating the feasibility of a Quarterly Economy Wide Survey (QEWS),

which would replace many of the quarterly source data collections. Implementation of the QEWS would lead to an improvement in the coherence of the quarterly national accounts.

CONCLUSION

The compilation of national accounts estimates is a complex task that involves assembling a wide-range of source data within an overall accounting framework. It is inevitable that statistics compiled on this basis will always be subject to some imperfections, and in many cases trade-offs (such as that between timeliness and reliability) must be made. Nonetheless, the ABS is committed to a program to improve the quality of its national accounts statistics, and there are many significant developments both recently completed and currently under way that will contribute to this objective.

However, improving the national accounts is not a 'one-off' exercise. The ABS will continue to seek opportunities for enhancing the national accounts, and the views of users on what they expect from these statistics will continue to play a pivotal role in this work.

FURTHER INFORMATION

For further information on recent and planned developments aimed at improving the quality of the Australian national accounts, contact Peter Harper, who is the Assistant Statistician of the ABS National Accounts Branch, on telephone (02) 6252 6646 or e-mail [**peter.harper@abs.gov.au**](mailto:peter.harper@abs.gov.au).

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